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ABSTRACT

The Scottish Council for Research in Education (SCRE) reviewed the literature on teacher stress, examining what stress is, causes and effects of stress in teaching, how teaching compares with other professions, what Scottish research says, and how teachers cope with stress. Stress has increasingly acquired a negative connotation, implying excessive demand or pressure, though it was originally defined as a neutral general adaptive syndrome of the human body to demands. Measurement of teachers' stress levels has relied heavily on information gained from self-report scales and inventories. It is generally accepted that stress is a multidimensional, multilevel phenomenon influenced by personal, situational, or structural factors. Some comparisons are possible between teaching and other occupations. For example, Scottish research indicates that teachers' stress levels are within the norm for the Occupational Stress Index. Few studies of teacher stress in Scotland have been commissioned. The most relevant Scottish research on teacher stress comes from two SCRE studies, which show that teachers believe their workload is increasing. Teachers have adopted many coping strategies, most of which are palliative because teachers feel unable to address the root causes of occupational stress. The general advice for helping teachers cope is to develop realistic, positive attitudes and good physical health. (Contains 62 references.) (SM)

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Feeling the Strain

An overview of the literature on teachers' stress

Valerie Wilson

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Feeling the Strain

An overview of the literature on teachers' stress

Valerie Wilson

The Scottish Council for
Research in Education

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The reviewer would like to acknowledge the work undertaken by Margaret Johnstone, whose reviews of stress in teaching were published by SCRE in 1989 and 1993. The current review builds upon these. In addition, thanks are also owed to Jon Lewin, Information Officer at SCRE, who searched several databases for relevant published literature.

The views expressed in this review are those of the author and not those of SCRE.

Executive Summary

The Scottish Executive Education Department (SEED) commissioned the Scottish Council for Research in Education (SCRE) to review the literature of research on teacher stress. The review was conducted very quickly during February 2002. Two previous studies of teacher stress had been published by SCRE: one in 1989 and a second in 1993. This current review updates these by inputting findings mainly from British studies published during the past ten years.

Aims and findings

The main aim is to review the published literature on stress in teaching, its impact and comparison with other professions. A summary of the questions addressed during the review and the main findings are presented below.

What is stress?

- Stress was originally defined as a neutral general adaptive syndrome of the human body to demands.
- Increasingly it has acquired a negative connotation, implying excessive demand or pressure.
- It is difficult to distinguish stress from its causes and effects.
- Three explanatory models of stress have been developed to help us understand the concept of stress, based on engineering, medical and inter-active principles. The first two models assume that teachers are subjects rather than actors in their own destiny; in contrast the third is predicated on shared responsibility for situations which may give rise to occupational stress.
- Ways of measuring teachers' stress levels have relied heavily on information gained from self-report scales and inventories; more recently log books, diaries and observations have been used to supplement them. However, research based upon tests of physiological changes have rarely been conducted outside laboratories.

What are the causes and effects of stress in teaching?

It is now generally accepted that stress is a multidimensional and multi-level phenomenon which is influenced by personal, situational or structural factors. Specifically:

- Studies of occupational stress indicate that workload and communications are significant causes.
- Anticipation, worry, helplessness and executive roles have all emerged from laboratory studies as psychological factors which influence stress.

- Several writers concur in finding that pupils' behaviour (misbehaviour), poor working conditions, especially relationships with colleagues, workload, mainly overload, and poor school ethos are the major causes of teacher stress.
- There is considerable evidence, mainly from self-reports, that teachers feel ill as a consequence of excessive stress. However, available absence and retirals statistics are not sufficiently specific to support this connection.
- Despite the widely reported feeling of teachers' disenchantment with their profession and the desire for early retirement, research has not explored whether this has had a direct impact on pupils.

How does teaching compare with other professions?

It is possible to make some tentative comparisons between teaching and other professions. The main points to emerge are that:

- Absenteeism and early retirals from the teaching profession can act as proxy measures of stress. However, both are under-developed sources of information.
- Teacher retiral rates have declined over the past decade in Scottish schools but this may not reflect a true demand. A study in England indicates that 'psychiatric' is the largest single cause of teachers' early retirals.
- The TUC suggests that employees in Britain work on average more hours per week than workers in the rest of Europe. In addition, a higher proportion of their safety representatives report that teaching is stressful, second only to the banking and finance industry.
- There are few studies which have compared teachers' stress to that experienced by other professionals. However, two studies in Scotland indicate that teachers' levels were within the norm for the Occupational Stress Index.

What does the Scottish evidence tell us?

From the fourteen Scottish references identified, we conclude that:

- Few studies of teacher stress in Scotland have been commissioned. The exceptions are the previous SCRE reviews upon which this current one builds, and two surveys of teachers' workload. All were completed by SCRE researchers.
- In 2001 a support service to help stressed teachers was launched in Scotland by the Teachers' Benevolent Fund. The Fund operates a similar service in England paid for by the DfES. There appears to be an absence of research demonstrating the need or demand for such a service in Scotland.
- The most relevant Scottish research on teachers' stress in Scotland is provided by two SCRE studies funded by the EIS. Both show that teachers perceive their workload to be increasing.

- Some illuminative evidence of the potentially adverse impact of educational innovation on Scottish teachers emerges from a number of other research studies conducted by SCRE. Two in particular report that teachers believe there are now more demands on their time which leads some to feel more stressed.

How do teachers cope with stress?

Some evidence of the way teachers cope with stress was discovered.

- The general advice for helping teachers cope with stress is to develop realistic, positive attitudes and good physical health.
- In practice teachers have adopted a range of coping strategies: most tend to be palliative as by and large teachers feel they are unable to address the root causes of their occupational stress. Some strategies may be ineffective or dysfunctional.
- Some recommend that programmes of behavioural therapy or counselling services may help teachers cope with stress. But these are largely unevaluated, labour intensive and unlikely to become widely available.
- More recently, 'time-out' sabbaticals and counselling have become available to teachers in England. But again these are likely to be taken up by only a small percentage of teachers.
- More optimistically, some researchers suggest that the movement towards self-reflection helps protect teachers from stress.

Finally, areas which merit further investigation are proposed.

1: Introduction

1.1 Background to the review

In 1989 the Scottish Council for Research in Education (SCRE) published a review of stress in teaching (Johnstone, 1989) as a contribution to its Practitioner Mini Paper series. Four years later the review was updated (Johnstone, 1993a) and a separate study of teachers' workload and associated stress (Johnstone, 1993b) undertaken by SCRE for the Educational Institute of Scotland. Even then, in 1993, Kyriacou and Harriman (1993) were claiming that as a consequence of the volume of research undertaken, 'we now have a clear idea of the major sources of stress facing teachers, the most common symptoms of stress, how teachers typically try to cope with stress, and how schools can reduce levels of stress' (p.297). Since those publications in the early 1990s, interest in occupational stress in general and teacher stress in particular have grown amongst researchers, policy makers, employers, teachers and their professional associations.

Three examples of this concern will set the context for this current review. First at a UK level, the Trades Union Congress (TUC, 2000) has called upon the Health and Safety Executive to recognise that stress is a major workplace hazard by drawing up standards for tackling excessive workloads, low staffing levels and long hours, all of which it believes contribute to employee stress. And in addition, 7 November 2001 was designated a National Stress Awareness Day, during which stress-management events were planned, including seminars to help people deal with stress in the work place.

Second, turning specifically to the teaching profession, the Teachers' Benevolent Fund has recently supported the establishment of Teacher Support Scotland, as an equivalent service to the one provided by the Teacher Support Network in England. The service was launched in Scotland at a symposium held in Dunblane on 11 December 2001 at which representatives of the Association of Directors of Education, the Educational Institute of Scotland, the Catholic Education Commission and the former registrar of the General Teaching Council for Scotland welcomed the initiative.

And finally at the tenth meeting of the Council of the General Teaching Council for Scotland, which by coincidence was held on National Stress Day (GTC Minute, 7/11/2001) the Registrar outlined the challenges which faced the new Council. He highlighted the need for the Council to develop 'an extension of the Council's powers into the area of competence and ill-health' in its role as 'guardian and protector of the profession and the professionalism of teachers'. This is a clear indication that teacher ill-health, including stress, has become an issue of concern, worthy of further exploration.

1.2 Aims and scope

The overall aim of the review is to report on literature published during the past ten years in the UK on the level of teacher stress, its impact and comparison with other professions.

Six research questions have been applied to the literature. They are:

- What is stress?
- What are the accepted causes of teacher stress?
- How prevalent is stress in teaching compared to other professions?
- What are the effects of stress on teachers as individuals, and on pupils and schools?
- What does the Scottish evidence tell us?
- How do teachers cope?

1.3 Definitions

As was pointed out in previous SCRE reviews of stress (Johnstone, 1989, 1993a, 1993b), stress has been construed in different ways. Originally it was defined in neutral terms as the human body's non-specific physiological response to any demand (Selye, 1956). However, increasingly it has acquired negative overtones implying excessive pressure, perceived threat or overload and inability to cope. In addition, stress, its symptoms and how to measure them have been conflated in ways which are far from helpful. These will be explored further in Chapter 2.

1.4 Search methods

In previous SCRE reviews (Harlen & Malcolm, 1997), we utilised the concept of 'best evidence synthesis' which Slavin (1990) borrowed from the law profession and applied to reviewing educational research. It requires the reviewer to identify criteria for determining good quality research and to place more emphasis on those studies which match the criteria than those which have identifiable shortcomings. While recognising the need to establish criteria for the inclusion of research findings in this review, the short timescale in which it was undertaken has imposed its own constraints.

One of the researchers cited in this review (Kyriacou, 2001) alludes to the large body of research on the topic of teacher stress. In an initial search of the British Education Index 133 references were found but very few refer specifically to the teaching profession in Scotland or include reference to Scottish teachers within larger UK studies. This, as we will see later, presents us with some difficulties extrapolating results from other educational systems.

The criteria for inclusion of studies in this review are as follows:

- Studies concerned primarily with stress of primary and secondary school teachers

- Studies undertaken within the UK
- Reports of research published within the past ten years which add to previous SCRE reviews
- Where possible, reports which have been published in peer-reviewed journals. Exceptions are made for conference papers which appear to be relevant but where evidence of peer reviewing is absent.

In an attempt to focus on research evidence, newspaper articles and policy documents have largely been excluded.

A description of the search procedure is presented in Appendix 1.

1.5 Organisation of the review

The published literature identified during this current review has been organised by research question. It is presented in seven sections of which this introduction is the first and in which we present the aims, research questions, definitions and scope of the search strategy. In Chapter 2 the meaning of the word 'stress' is defined in both its negative and positive connotations. Chapter 3 explores the possible causes of teacher stress and its impact on teachers, pupils and schools. Chapter 4 goes on to compare how stress levels in teaching compare to those in other comparable professions. The available Scottish evidence is discussed in Chapter 5 and how teachers cope with stress is summarised in Chapter 6. The final chapter offers some conclusions which arise from this review and indicates areas which merit further investigation.

2: What is stress?

2.1 Introduction

The aim of this section is to develop a working definition of 'stress' as a starting point for an examination of the published literature on the topic. It utilises the definitions provided in previous SCRE reviews (Johnstone, 1989, 1993a) and considers whether the three-fold conceptualising of stress, using engineering, medical or pressure models, is still appropriate today. Finally, it highlights ways in which the occurrence of stress has been measured and indicates possible limitations of the instruments themselves.

2.2 Definition of stress

'What is stress' was the question posed in previous SCRE reviews (Johnstone, 1989, 1993a). At first it may seem a semantic exercise to begin a review of stress by exploring definitions. However, as we shall see later (see Chapter 3) it is extremely difficult both to disaggregate stress from its effects, and also to agree instruments with which stress levels in human beings can be measured. We also believe that without a clear definition, the reliability and validity of various published studies on stress cannot be assessed.

In the mid-1950s Hans Selye (1956), an endocrinologist, perceived stress to be a neutral physiological phenomenon. More specifically he defined it as a general adaptive syndrome or non-specific response to demands placed upon the human body. These demands could either stimulate or threaten the individual. In later work, Selye (1974) distinguishes between 'stress' and 'distress'. This was the first definition presented in previous SCRE reviews and it is still a useful beginning. It also accords with the derivation of the term as explained in *Shorter Oxford Dictionary on Historical Principles*. In modern usage, however, stress has come to imply the subjection of a person to force or compulsion, especially mental pressure or by overwork, which leads to strain or mental fatigue. By 2001, Kyriacou was defining teacher stress as

> the experience by teachers of unpleasant, negative emotions, such as anger, anxiety, tension, frustration, depression, resulting from some aspect of their work as a teacher. (p.28)

And here lies the nub of the problem. As Selye (1974) explained, humans require sufficient pressure to encourage them to perform creatively but excessive pressure can lead to distress and attendant feelings of oppression, harassment or collapse. Nor can it be assumed that everyone will react uniformly to the same demands: what may be perceived as a stimulus by some, may reduce others to distress. Of significance here is Brimer and Reynolds' (1993) claim that there is no distinctive, unique concept called 'stress'; in their view stress is a broad heading covering a variety of different and ever-changing factors.

In earlier research, Lazarus (1976: p.47) proposed that 'stress occurs when there are demands on a person which tax or exceed his (*sic*) adjustive resources'. This definition recognises the two components of stress: the pressure imposed

and the adaptive resources of the individual to withstand the pressure. This remains a useful distinction which will be illustrated further in relation to the causes of teachers' stress (in Chapter 3, below).

Turning specifically to stress in teaching, previous SCRE reviews (Johnstone, 1989, 1993a) drew heavily on Dunham (1984b) who proposed three ways of defining stress. Each model has different implications for teachers and educational managers.

The engineering model

The engineering model presents stress as the load or demand placed upon a person which exceeds the 'elastic limit' of the individual's capacity to adapt to it. In this model, teachers are perceived to be subjects rather than actors. Some operate in situations, such as during probation, working with children with special educational needs or in areas of multiple deprivation, which may give rise to demands beyond their adaptive limits.

The medical model

The medical model focuses on physiological and psychological responses, which can arise as a consequence of stress. A plethora of symptoms, such as depression, tension, irritability, insomnia, loss of appetite, and weight loss, are essential components of the definition. But it is also clear that these symptoms are not unique to stress and may be attributed to other medical conditions. Again the teacher is portrayed as a subject to whom pressure is applied with resultant stress.

The interactive model

This model perceives stress as interactive and situational. It recognises that on the one hand teaching as a profession and some schools in particular may exert pressures on teachers; while on the other, individual teachers react in different ways and bring a variety of adaptive resources to help them cope with those pressures. Importantly, teachers are portrayed as actors who are no longer at the mercy of external pressures.

Of the three models, the third approach is perhaps the most helpful. It implies that responsibility for the maintenance of acceptable levels of stress in teaching is a two-way process. Employers have a statutory duty to ensure that the working environment in schools does not adversely affect employees' health; but teachers must also apply their adaptive resources to help them cope with the inherent pressures of their chosen profession. In addition, recent appeal court reductions of awards for stress at work (Guardian, 2002a) have also made it clear that employees who feel under undue pressure have a responsibility to inform their employers.

However, it contrasts with research and media representation of stress. For many the discussion (and hence the definition) of stress now focuses almost exclusively on its negative aspects. Kyriacou in his numerous papers (for example, Kyriacou and Sutcliffe, 1978a; Kyriacou, 2001) points to the negative

affective response of the teacher, 'such as anger or depression, which is usually accompanied by potentially pathogenic, physiological and bio-chemical changes, such as increased heart rate or release of adrenocorticotrophic hormones into the bloodstream' which may arise as a consequence of various aspects of teaching (Kyriacou & Sutcliffe, 1978a: p.2). These demands may be mediated by the teacher's perception of the demands, and also their individual coping mechanisms. The positive role of sufficient stress to enhance job performance and maintain motivation and creativity appears to have been lost in the current debate.

2.3 Ways of measuring stress

The search for greater clarification of what stress is led researchers to devise ways to measure it. For example the Occupational Stress Indicator (Cooper, Sloan and Williams, 1988) offers a variety of self-report scales which have been norm-referenced against samples drawn from various occupations. In the USA, the eponymous Burnout Inventory (Maslach & Jackson, 1981) purports to identify three different aspects of 'burnout'; while the Holmes and Rahe (1967) scale measures individual adjustment more generally to some of life's traumatic events, such as the death of a close relative or redundancy. All of these were mentioned in previous SCRE reviews and are still in use today. None is unproblematic.

The main difficulty is that most attempts to measure stress levels in teachers have relied almost exclusively on *self-report inventories* unsupported by medical tests or observational evidence. These findings are themselves open to challenge. At the very least it would be advisable to triangulate sources of evidence in order to increase the validly of the findings. For example, do teachers who report high levels of stress also have high sickness and absence rates? Are their heart and blood pressures rates elevated? Does contact with particular 'stressors', such as a particular class, pupil or parent, correspond with changes in physiological conditions. Most teachers, we suspect, would consider such methods intrusive and refuse to participate in such studies. Certainly most studies of stress which employ multiple methods have been conducted on volunteers in laboratory conditions, and as Fisher (1984) points out, real life is far more complex.

Since SCRE previously reported on stress, there has been considerable development in the use of diaries and log books to help teachers record events as they are experienced in the classroom. Johnstone's (1993) Teachers' Workload and Associated Stress study relied upon workload diaries. This method was replicated in two more recent studies: one of participants on the Scottish Qualification for Headship (Malcolm & Wilson, 2000); and one of teachers' workload (Hall, Wilson & Sawyer, 2001). It would, therefore, be wrong to dismiss self-reporting but readers should be aware of the limitations of the method.

2.4 Summary

In this section the question: 'What is stress?' was addressed. The main points to emerge are that:

- Stress was originally defined as a neutral general adaptive syndrome or non-specific response to demands.
- Increasingly it has acquired a negative connotation, implying excessive demand or pressure.
- It is difficult to distinguish stress from its causes and effects.
- Three explanatory models of stress have been developed to help us understand the concept of stress, based on engineering, medical and inter-active principles. The first two models assume that teachers are subjects rather than actors in their own destiny; in contrast the third is predicated on shared responsibility for situations which may give rise to occupational stress.
- Ways of measuring teachers' stress levels have relied heavily on information gained from self-report scales and inventories; more recently log books, diaries and observations have been used to supplement them. However, research based upon tests of physiological changes have rarely been conducted outside laboratories.

In sum, the main problem identified in earlier SCRE research – that 'stress' is difficult to define and remains open to various interpretations and measurements – remains. In the review of research that follows, readers should remind themselves that researchers may very well be operating with various definitions which will significantly alter the validity, reliability and transferability of their findings.

3: What are the causes and effects of stress in teaching?

3.1 Introduction

In the previous chapter we pointed out the difficulties associated with determining a precise definition of the term 'stress' and the increasingly negative overtones it has acquired. With these difficulties in mind, we now consider the possible causes and effects of stress; first in general, and second with respect to the teaching profession. Finally, the role played by more recent stressors, such as curricular innovation, school inspections and mergers, are considered.

3.2 What causes stress?

In the earlier SCRE reviews of stress (Johnstone, 1989, 1993a) psychological factors affecting stress in general were identified. These included anticipation, worry, feelings of helplessness and responsibility: all were cited in the literature as either contributory or alleviating factors in laboratory experiments. The key concepts are:

- *Anticipation* was found in some cases to be more stressful than the event. It could exacerbate stress when not accompanied by adequate coping skills (Lazarus, 1976).
- *Worry* may play a significant role in alleviating stress. Fisher (1984) provided details of the positive aspects of worrying.
- *Helplessness* may be less stressful than attempts to act assertively (Fisher, 1984).
- *Responsibility* associated with 'executive' roles may be more stressful than passive roles.

Although the above provide useful pointers to the possible causes of stress, they have been drawn largely from laboratory experiments which do not reflect the complexities of real life.

More recently Briner (Guardian, 2002b) has attempted to clarify what he sees as 40 years of 'woolly thinking' about stress by studying real situations. He found that 14 factors were associated with occupational stress. These are:

- Workload
- Communication
- Home-work balance
- Teamworking
- Performance feedback
- Role ambiguity
- Training and development

- Job insecurity
- Job design
- Management support
- Skill under-utilisation
- Effort-reward imbalance
- Tools and equipment
- Hours of work.

Outwith laboratory conditions, we see that *workload* (quantity, quality and time pressures) and *dealing with people* are identified as the prime causes of stress at work.

3.3 What causes teachers to be stressed?

Workload

Turning specifically to teachers' stress, Johnstone (1989) argued that many researchers (Kyriacou and Sutcliffe, 1977b; Kyriacou, 1980d, 1986; Dunham, 1984b) all attributed the major causes of stress to:

- Pupils' failure to work or behave
- Poor working conditions, generally in terms of relations with colleagues
- Workload, in terms of overload, underload, or routine work
- Poor school ethos.

Some years later SCRE was still reporting that teachers perceived their job to be stressful (Johnstone, 1993a). *Job overload* and *workload plus little time* featured prominently in a number of different studies (Byrne, 1992; Wynne *et al*, 1991). For example, Dewe (1986) found that workload consistently came top as the most frequent problem, the most anxiety-inducing problem and the most fatiguing problem in a study of 800 teachers in New Zealand.

Other factors have also been implicated. *Poor school conditions* were cited (Schonfield, 1991) as was pupil behaviour (Borg, 1990). In relation to pupil behaviour, a survey of Scottish schools (Johnstone, 1993b) found that repeated minor offences were seen by teachers as more troublesome than major single offences. The repetition of the behaviour rather than the level of the offence caused tension and stress, according to teachers. This supports earlier research (Lazarus, 1981) that repeated and continuous irritants can be stressful.

Just before the introduction of the Education Reform Act (1988) in England, a national study of occupational stress amongst headteachers in the UK was undertaken by Cooper and Kelly (1993). They concluded that primary headteachers were experiencing higher levels of job dissatisfaction and stress than their secondary and tertiary colleagues. The two main sources of stress were work 'overload' and 'handling relationships with staff'. The researchers

believe that stress was more prevalent in primary schools because of: a lack of clerical support; their small size and hence lack of variety, rewards and power; their relatively low status and the perceived less demanding nature of their job; and the amount of teaching cover they had to provide (Chaplain, 2001: p.197).

Change

In a number of studies, change itself is implicated in teacher stress: it can be a problem or challenge. Over a decade ago Travers and Cooper (1989) reported that the five top sources of job pressure were all problematic changes. These included:

- Lack of support from central government
- Constant changes within the profession
- Lack of information as to how changes are to be implemented
- Diminishing social respect for teaching
- The move towards a national curriculum.

Since this research was reported, the education system in all four home countries has undergone considerable change and some of these structural changes may be adding to longer-standing workload issues. Fullan (1996) argues that structural reforms, such as devolved school management engender overload and teachers' stress because they are experienced by them as fragmented and incoherent. These are problems inherent in any 'top down' systemic change in which a vision of the whole may be only understood by a few in key positions. Fullan believes that collaborative networks would give teachers more influence over change and increase their feelings of engagement with the change.

Certainly the relationship between change and workload seems to have been demonstrated. For example, Timperley and Robinson (2000) cite research which shows that as local involvement in management of schools increased, the percentage of time teachers spent in non-teaching duties rose from 42 per cent in 1971 to 56 per cent in 1990 (Campbell & Neill, 1992). This trend is confirmed by findings from a workload survey of Scottish teachers (Hall *et al*, 2000) in which 83% of respondents (N=1,014) reported that they spent more time on records and reports than before; 69% spent more on preparation, and 43% spent more on other non-teaching tasks. Coupled with the fact that 58% of senior managers reported working 45 hours or more and 31% for 50 hours or more per week, this gives a picture of the effects of change on the profession.

Raising standards

Another aspect of change which may be associated with stress is the drive to improve school standards. No Scottish evidence could be identified, but there was some evidence of the impact of the school inspection process in England. Since its introduction in 1992, the Office for Standards in Education (OFSTED) system of inspection has provoked intense interest and debate regarding its effects on schools. In 1999, the NFER undertook a study of 451 schools which

had been placed under special measures as a consequence of inspection, and compared these with 482 which had never been under special measures.

Previous research suggests that the period after inspection can be quite traumatic and the term 'post-OFSTED blues' has come to describe that feeling of exhaustion, burnout, lack of motivation and even depression which can follow inspections (Ferguson *et al*, 1999a). Scanlon's research at the NFER (Scanlon, 1999) confirms this picture. Respondents from both samples experienced some form of 'post-OFSTED blues'. Approximately a quarter of teachers and just under a third of those from special measures schools described their sense of depression and despondency after the inspection. A high proportion of teachers in both samples reported feeling stressed most of the time during the current school year: 43% of teachers in special measures schools and 32% of those from schools not on special measures. Both samples reported concomitant rises in sickness and time off work.

School merger

Finally, Kyriacou and Harrison (1993) highlight the stress which may result as a consequence of school mergers. This is particularly relevant during periods when school rolls are falling and many schools, especially smaller ones, may feel vulnerable. In a qualitative study of two schools which merged, the researchers conclude that stress was highest during the period when posts in the newly merged school were being assigned. Uncertainty and lack of information, coupled with the very real consequences for those involved (such as the threat of losing their job and the likelihood of major changes in their working practices) resulted in acute stress for those concerned. The researchers suggest that sympathetic interviewing, adequate time for forward planning and extra resources during the first year of merger would have helped.

In sum teachers believe that their workload has increased considerably during the past decade, largely attributable to an increase in the paperwork now expected of them. But as Timperley and Robinson (2000) point out increased workload on its own is not necessarily a problem: many teachers obviously do cope, largely by working longer hours. However, as workload is commonly associated with increased stress, teacher burnout and low job satisfaction, it cannot be ignored.

In the next section we examine some of its consequences.

3.4 What are the effects?

Teachers' stress may have an impact on teachers as individuals, on the schools in which they work and on the pupils they teach. It is also estimated to have an economic impact on the education system in terms of lost teaching time and additional costs of replacement teachers. Unfortunately, it is difficult to quantify these costs because reported effects may actually be strategies to help teachers cope and it would be unsafe to assume that those who report no symptoms are necessarily stress free.

Many researchers argue that the effects of stress in teaching fall largely on individual teachers and result in illness and absences. Again exact quantification is not possible. Travers and Cooper (1989) did find that 23% of their sample of 1,800 teachers reported significant illness in the past year. Those illnesses are described as stress related; however, they also contain illnesses of a vague nature (eg back problems) which gave the teachers 'permission to be absent'.

The stress/illness connection is, however, disputed by some researchers. Although claims have been made of connections between stress in life and illness, it has been suggested that people remain quite healthy under high levels of stress in their lives (Holahan & Moos, 1985). This has focused researchers' attention on the relative roles of 'buffering' (ie what mediates the impact of stress) and 'hardiness' (ie what psychological resources can teachers marshall to hold stress within acceptable limits).

Troman (1998) describes the cost which he thinks some teachers pay by continuing to work with increased stress levels. The consequence is chronic strain on their personal lives. In a small-scale study of 24 teachers, he found that teachers reporting chronic stress were often involved in break-up of marital or personal relationships, caring for a dependent relative who was chronically ill, or had experienced the death of a close relationship. In these circumstances it is impossible to establish which situation (work or personal life) was causing the most stress to the individual teacher.

The effects of stress in other than the personal sense are difficult to estimate. Occupational stress in industry may be estimated in monetary terms in the amount of lost production but in teaching the loss is defined in terms of the departure of skilled teachers, impairment of teaching skills, or even premature death. Sickness/absence, turnover/retiral rates are discussed in more detail in Chapter 6 below. However, in general teacher turnover figures are not illuminative; nor is information from retirees, such as exit interviews, available. There is also little solid evidence to suggest that stressed teachers are less (or even more) effective teachers than unstressed teachers, although it has been argued that teachers under stress disengage from the job of teaching.

There is some evidence that stressed people make more mistakes than unstressed people (Firth-Cozens, 1992) but this was not explored in teaching. Given the numbers of studies in which teachers report that they are feeling increased stress levels, it is hard to believe that this does not impact on their interactions within the classroom. However, as most research has explored teachers' feelings, evidence of the possible impact on pupils is missing.

Hughes (2001) suggests that implicit in most research studies on teacher stress is the assumption that many teachers who suffer burnout may want to retire but for various reasons they remain in post. Demand is suppressed because, as Troman (1998) points out, the Teachers' Superannuation Fund has tightened up the regulations by which teachers may take early retirement. This probably serves to keep many teachers in post who wish to take early retirement. In addition, the growth of intervention strategies which are directed at helping

teachers 'remain relatively "sane", even in relatively "insane" places' (Cooley & Yovanoff, 1996: p.344) implies that there is a demand for such developments.

Even in 1989 before many of the current educational changes were implemented in the UK, Smithers (1989) revealed a deeply discontented profession, with one in three teachers feeling 'trapped' and wishing to 'escape'. There is no evidence that the situation has improved. Travers and Cooper (1996) for example, report that 66% of their sample of teachers had actively considered leaving the profession in the previous five years. And the situation for headteachers may be even worse. Troman (1998) cites the National Association of Headteachers which reports that four out of five headteachers in England are opting for early retirement and reporting burnout in their forties. Scottish research is not available.

3.5 Summary

It is now generally accepted that stress is a multidimensional and multi-level phenomenon which is influenced by personal, situational and structural factors.

- Studies of occupational stress indicate that workload and communications are significant causes.
- Anticipation, worry, helplessness and executive roles have all emerged from laboratory studies as psychological factors which influence stress.
- Several writers concur in finding that pupils' behaviour (misbehaviour), poor working conditions (especially relationships with colleagues), workload (mainly overload), and poor school ethos are the major causes of teacher stress.
- There is considerable evidence, mainly from self-reports, that teachers feel ill as a consequence of excessive stress. However, available absence and retirals statistics are not sufficiently specific to support this connection.
- Despite the widely reported feeling of teachers disenchantment with their profession and the desire for early retirement, research has not explored whether this has had a direct impact on pupils.

4: How does teaching compare with other professions?

4.1 Introduction

As there are no reliable statistics on the prevalence of stress in teaching, it is difficult to make valid comparisons with other professions. In this section evidence from proxy measures such as absenteeism and retirals is presented, and also findings from the few studies which have attempted to compare stress in teaching to that in other professions. Finally the section ends with some tentative conclusions.

4.2 Proxy measures

Absenteeism

The amount of stress in teaching, or the number of teachers suffering from stress, has not been, and some would argue may never be, quantified nationally. It is, therefore, impossible to say whether stress among teachers is increasing or how this level compares with stress in other professions. Attempts to estimate trends are further hindered by the suspicion that available figures represent changes in teachers' willingness to report stress rather than any real increase in its prevalence. However, absence rates do provide a proxy measure and a way of comparing different professions.

In the most recent work undertaken for the DfES, Bowers and McIver (2000) found that teachers in maintained schools lose less time from work through illness than comparable social services staff, including social workers, staff in day nurseries and managerial staff. Altogether, their sickness absence rates are 15% lower than other local government employees doing non-manual jobs. Specifically:

- The average teacher loses 27% less working time than the UK average employee, although the typical working year of the latter is longer.
- Nurses and midwives take about a third more time off work due to sickness than do teachers.
- Central government employees, ie civil servants, lose 30% more time than teachers due to sickness; but
- Teachers lose 6% more working time than NHS staff with similar levels of training to teachers, eg speech and physiotherapist.

However, as Bowers and McIver (2000) point out, these absence rates are by no means uniform across the teaching profession, nor can all absences be attributed to stress. The average teacher in a maintained school loses 30% more time due to illness that the average teacher in an independent school. In addition a teacher in a maintained school is more than twice as likely to take time off for sickness during the year than a teacher in an independent school. Undoubtedly these figures reflect the different conditions of employment in which each

operates: Pupil-teacher ratios are generally lower in independent schools and teachers work on average 17 fewer days per year.

Goss (2001) cites private correspondence with DfES sources which suggests that to date no accurate assessment of the cost of this teacher absenteeism has been carried out. Attempts to do so are severely constrained by inconsistencies in the way sickness absences are recorded both at school and education authority levels. For example Bowers and McIver (2000) report that absences of less than 5 days were not recorded by 5–10% of schools, while an absence of less than a whole day was not recorded by 65% of schools. However, given a mean annual absence from work rate of 6.4 days per full-time equivalent post and an average teacher salary of £25,000, Goss estimates that it costs £819.20 in wages alone per year. This compares with £636 in the food industry; £539 in vehicle manufacture and £492 in the pharmaceutical industry. It should, however, be remembered that these figures are based upon evidence from LEAs in England and it would be unsafe to extrapolate to Scottish schools.

Retirals

Turning to retirals, the Teacher Workforce Planning Projections (Scottish Executive, 2001) charts both entrants to the profession by sector/subject and also retirals. The total number of teachers taking early retiral from education authority schools in Scotland dropped from 294 in 1995 to 196 in 1999. These figures may not represent a true demand and probably reflect education authorities' desire to restrict early retirements during periods of financial constraint.

The number of teachers leaving posts (for any reason) fell from 3200 in 1989/90 to 1920 in 1998/99. Again these figures must be approached with caution as they were collected during a period when the number of teachers was declining. In addition, the Scottish Executive combines the number leaving for marriage, ill-health or domestic reasons into one category.

Some help in understanding movements into and out of the teaching profession is provided by Bowers and McIver (2000). In 1999, they surveyed a randomly selected sample of 570 former teachers. Respondents were asked to classify their illness at retirement using seven categories. As might be expected individual illnesses often fell into more than one category. Overall, the 'psychiatric' category was the largest single one (57% of male and 42 % of female teachers retired because of mental health difficulties) Using these figures the researchers extrapolate to the teaching profession in general and argue that, depending on the region, between 1 in 177 and 1 in 488 teachers in the 40–59 age group retire because of mental ill-health. Again the results should be read with caution.

4.3 Available evidence

Few research studies have compared teachers stress levels with those recorded by members of other professions. The available evidence is explored below.

Pratt (1976) extracted data from the National Survey of Health and Development cohort, ie 5000 people born in a given week in 1946. At the date of the survey, the respondents were aged 26. They were asked whether in their work they felt none, little, some or severe nervous stress. Of the 227 teachers in the cohort, 61% reported some/severe stress, compared to 51% of the other professionals. This result is consistent with other research (Griffith *et al*, 1999) which indicates that younger teachers are more likely to feel stressed, perhaps because at the beginning of their careers they have not yet learnt how to cope with working conditions.

In their study of teachers' workload and stress, Munn and Johnstone (Johnstone, 1993b) compared the teachers' scores on the various components of their work with those of people in managerial posts. The dimensions used were job pressure, type A behaviour (ie, aggressive, competitive, striving), locus of control, coping strategies, job satisfaction, mental health and physical health. The major points to emerge are that teachers are:

- Less satisfied than the general population with the factors intrinsic to the job, the organisational climate, and home/work interface; and also
- Less satisfied with their job than are managers.

However teachers are:

- More satisfied than the general population with their career and achievement.
- More likely than the general population to cope with stress by using social support.
- More likely to register lower mental and physical health scores than the general population or managers.
- More prone to type A behaviour than managers.
- More convinced that the job is controlled by someone else than are managers.

The OSI also provides norms for other occupations, eg police officers, health workers, water company employees, brewery workers, ambulance workers, general practitioners, senior civil servants and university lecturers. The only group which Munn and Johnstone found to approach the score of the teachers on factors intrinsic to the job (mean=33.25) was general practitioners (mean=32.48).

The overall conclusion that stress in teachers is not as prevalent as predicted was confirmed in a more recent study. Pithers and Soden (1998) compared a sample of 169 Scottish vocational teachers, ie lecturers in further education colleges, with 163 Australian teachers. Although a heavy workload, lack of resources and lack of time were common sources of occupational stress in both

groups, all the strain levels remained within the 'average' levels when compared with norms generated by their study and with those from OSI norms.

Further comparative evidence is provided by a survey of safety representatives across most occupational sectors (TUC, 2000). Stress or overwork was mentioned as the main work hazard by 82% of the representatives from the education sector, the same percentage as from the voluntary sector. This was more than from the health service (74%) but less than banking, finance and insurance (86%).

The TUC also draws our attention to the 'long hours culture' by pointing out that workers in the UK work longer hours than employees anywhere else in Europe (43.6 hours compared with an EU average of 40.4). Significantly both Johnstone (1993) and Hall *et al* (2000) found that Scottish teachers worked 42.5 in 1993 and 42 hours in 2000 – more than other European countries, but less than the UK average.

4.4 Summary

Despite the paucity of reliable evidence on the prevalence of teacher stress, it is possible to make some tentative comparisons between teaching and other professions. The main points to emerge are summarised below:

- Absenteeism and early retirals from the teaching profession can be a proxy measure of stress. However, both are under-developed sources of information.
- Teacher retiral rates have declined over the past decade in Scottish schools but this may not reflect a true demand. A study in England indicates that 'psychiatric' is the largest single cause of teachers' early retirals.
- The TUC suggests that employees in Britain work on average more hours per week than those in the rest of Europe. In addition, a higher proportion of their safety representatives report that teaching is stressful than most other occupational sectors, second only to the banking and finance industry.
- There are few studies which have compared teachers' stress to that experienced by other professionals. However, two studies in Scotland indicated that teachers' stress levels were within the norm for the Occupational Stress Index.

5: What does the Scottish evidence tell us?

5.1 Introduction

Approximately 900 references to teachers' stress were identified in the course of this review, of which only 14 referred specifically to Scotland. In this section that Scottish evidence is summarised together with findings from other Scottish-based research studies, which while not focusing specifically on stress, do provide additional insights into the topic.

5.2 Evidence of need in Scotland

Of the 14 references to Scottish-based research on the ERSDAT database, most were small-scale studies undertaken as part-fulfilment for post-graduate degrees in education at Scottish universities. Four have been discounted because the professional group or country was outwith our concern. These encompassed studies of teachers in Malaysia, nurse tutors, care workers and students in training. Of the remainder most are now dated; two are the SCRE reviews, upon which this current review has been built, and two are surveys of teachers' workload funded by the EIS. The evidence from these latter two will be reported here.

In 1993, Munn and Johnstone provided a snapshot of teachers' workload in schools within four Scottish regional authorities (1993b). 570 teachers from different sectors and a variety of levels of responsibility responded. These teachers maintained a workload diary for a week and also completed an *Occupational Stress Indicator* questionnaire. The response rate was 66% for the diary and 62% for the questionnaire. Over a typical week teachers recorded an average of 42.5 hours of work. As expected, the main elements were teaching, preparation and marking. Meetings occupied almost as much time as paperwork in secondary schools.

Turning specifically to stress, 93% (N=531) reported at least one occasion when they felt stressed during the survey week. Most reported between three and five such incidences. Significantly, the longer the hours worked, the more stress occasions were reported. Workload was the most frequent cause of stress; new demands, administrative tasks and planning associated with change were also identified as stressors.

At the behest of the EIS, SCRE (Hall *et al*, 2000) repeated this survey but with a larger sample. 3000 union members were asked to complete a workload diary during one week in January 2000. There is a remarkable similarity in the results emerging from both surveys. Teachers in the second survey worked an average of 42 hours per week. Again teaching, preparation, planning and marking were the main items. However, despite the actual hours recorded in their diaries, 93% believed their workload had increased recently (71% 'a lot' and a further 22% 'somewhat'). The strength of feeling is more apparent amongst those with longer years of service; however, even relative 'newcomers' (ie those will less than five years service) perceived significant increases in the past few years. If

this continues, it may impact on recruitment and retention to the profession – already a problem in some areas.

These results are interesting because again they highlight the influence of perceptions. Teachers in the second survey believed that their workload had increased over the period, when in fact they continued to work the same number of hours as was reported in 1993. The explanation may lie in the distribution of time to job activities. The majority thought that they now spent more time on preparation and planning (69%) and record keeping (83%) than they previously did.

Further illumination of changes affecting teachers adversely is provided in an evaluation of the first cohort of candidates for the Scottish Qualification for Headship (Malcolm and Wilson, 2000). Candidates perceive that studying for the qualification has impacted upon their working lives. On the positive side candidates 'reflect more often on the various skills', 'have a more helpful framework within which to work', and 'plan work in greater depth than before'; but this must be counterbalanced by the majority (89% on the standard route and 83% on the accelerated route) who 'feel under greater stress than before SQH'.

Cryptic comments from respondents, many demonstrating the humour noted by other researchers in this field, help us understand why:

- I have spent a lot of my time at home either reading or working on SQH – my social life has definitely suffered!
- I have never been so busy. Were I not what I am, I'd be stressed out by now.
- Exhausted and ill after Christmas term, time for family.
- Too many tasks, too little time.
- I am too tired to think!
- I feel I need to have some life away from work and work-related issues.
- I am also class-committed (and have a husband, daughter, dog, two cats and a horse to feed and speak to once in a while!).

An earlier study, again from SCRE, shows the impact that a decade of educational innovation has had on teachers' stress, albeit a sample drawn from small primary schools. In a study undertaken between 1996 and 1998 of all small primary schools in Scotland (N=893), Wilson and McPake (1998) identified the tension associated with the role of *teaching headteacher* during periods of multiple policy innovation. As in the workload survey (Hall *et al*, 2000) reported above, small school headteachers perceived an increase in the pace of change. One pointed out:

> *Although I agree with the philosophy* [of 5–14] *... there is simply not enough time to cover all the targets. TIME, TIME, TIME – there is not enough hours in the day*
>
> (Headteacher, 19 pupil school)

Significantly, small school headteachers indicated that informal discussions with other headteachers is their first source of support – hence confirming the important of social support systems as a way of mediating stress (see Chapter 7 below). Informal meetings also served to overcome headteachers' feelings of isolation which were not necessarily associated with geographical remoteness in island and rural areas.

Finally, another article (Pithers & Soden, 1998) which compared stress in a sample of vocational teachers in Scotland and Australia was located. Although the respondents in both countries were lecturers in further education rather than teachers in the compulsory education sector, the results are interesting. The similarities in overall stress levels of the two groups far outweighed any national differences, with role overload identified as the strongest source of occupational stress. Again findings from other research are reinforced in the main conclusion that individual personal resources play a large part in mitigating the effects of increased workload.

5.3 Recent developments

The most significant recent development related to teacher stress in Scotland has been the creation of a Teacher Support Scotland agency. It was launched at a symposium in Dunblane in December 2001 (TES, 14/12/2001) and welcomed by influential figures in Scottish education, such as the president of the Association of Directors of Education and the former registrar of the General Teaching Council.

The agency's parent organisation, Teacher Support Network, operates *Teacher-line*, a 24 hour confidential counselling service in England which is staffed by accredited counsellors. This service is free to the user because it is funded by a grant from the DfES to the Teachers' Benevolent Fund. *Teacher-line* reports taking 13,000 calls a year which is three per cent of all teachers in England (TBF, 2000). The agency now intends to commission research to assess the need for, and the extent of, support services in Scotland.

Patrick Nash the chief executive of the Network, reported that it was branching out into 'well-being programmes' in which school staff in eight education authorities in England would be encouraged to take a proactive approach to their welfare. It is interesting here to note that Griffith *et al* (1999) found that 'active planning' did not significantly predict lower stress levels in teachers. The researchers suggest that as many teachers perceive active planning to be a part of the normal work of a competent teachers, they would not see it as deliberate coping strategy for stress reduction.

5.4 Summary

Little evidence relating specifically to teacher stress in Scotland was identified during the course of this review (only 14 of 897 references). Of these most refer to small-scale studies completed in the late 1980s and early 1990s as part-

fulfilment of post-graduate degrees in education. The main conclusions we draw are:

- Few studies of teacher stress in Scotland have been commissioned. The exceptions are the previous SCRE reviews upon which this current one builds, and two surveys of teachers' workload. All were completed by SCRE researchers.
- In 2001 a support service to help stressed teachers was launched in Scotland by the Teachers' Benevolent Fund. The Fund operates a similar service in England paid for by the DfES. There appears to be an absence of research demonstrating the need or demand for such a service in Scotland.
- The most relevant Scottish research on teachers' stress in Scotland is provided by two SCRE studies funded by the EIS. Both show that teachers perceive their workload to be increasing.
- Some illuminative evidence of the potentially adverse impact of educational innovation on Scottish teachers does emerge from a number of other research studies conducted by SCRE. Two in particular report that teachers believe there are now more demands on their time which leads some to feel more stressed.

6: How do teachers cope?

6.1 Introduction

A number of initiatives are aimed at helping teachers cope with the job-related pressures which many feel have increased during the past decade. These attempt either to address stress directly by removing or mitigating its perceived causes or indirectly by suggesting palliative measures which teachers may take to help them cope more effectively with potentially stressful situations. Each is considered in turn below.

6.2 Direct action

Probably the most direct action teachers can take to mitigate their occupational stress is to remove themselves from the situation which they think is causing their stress. And clearly, as we have seen in Chapter 3 above, a number do this each year either temporarily through absence or permanently by leaving the profession. As far as we are able to tell, these number are still relatively small in Scotland: only 196 teachers took early retirement because of ill-health in 1998–9 (SEED, 2001). The figure for stress-related retirals is not available. It is also difficult to gain an accurate national picture of the prevalence or costs of stress-related illness as Education Authorities are responsible for maintaining sickness/absence records.

Direct action can also be taken by school managers. For example, we do not know the extent to which disruptive pupils are removing from particular classes on an ad hoc basis to give class or subject teachers a respite; nor how sets of pupils are allocated to teachers according to their ability to cope. These are managed at departmental/school level. In addition, teachers' requests for transfer within authorities may contain a percentage who feel stressed in their current schools. There has also been increasing recognition that it may only be possible for teachers working in areas of multiple deprivation to maintain their motivation and enthusiasm, and possibly their health, for a limited time.

A *Sabbatical Scheme for Experienced Teachers in Challenging Schools in England* was introduced by the DfES in September 2001. Challenging schools are defined as those in which 50% or more of the pupils are eligible for free school meals or equivalent measures in non-maintained special schools. While the stated purpose of the sabbatical is to create opportunities for experienced teachers to undertake a significant period of development to enhance their own learning and effectiveness, there is an implicit recognition that working in such schools for long periods is stressful and that time out periods will benefit not only the individual teachers but also the pupils and the schools. The DfES is currently commissioning a formative evaluation to help shape the programme's future direction. However, being realistic, even if these schemes are replicated throughout the UK, only a small proportion of the teaching professional will ever gain access to a 'time-out' programme.

In contrast, the majority of teachers must develop their own strategies. When asked what strategies they actually pursue to minimise stress, teachers are able to provide a list of coping mechanisms (see Dunham, 1984b; Kyriacou, 1980d; Dewe, Guest & Williams, 1979). These were summarised in previous SCRE reviews (Johnstone, 1989, 1993a) as:

- Keep things in perspective
- Avoid confrontations
- Relax at work.

Unfortunately these strategies are so general that they could apply to almost any work environment and probably offer little help to teachers who may be struggling to cope with specific work situations.

Dunham (1984b) on the other hand lists ten most frequently reported strategies taken by teachers in three English comprehensive schools. These were:

- Set aside a certain amount of time during the evening free from school-related work
- Try to come to terms with each individual situation
- Talk over stressful situations with partner or family
- Become involved with family and friends when not at school
- Learn to say 'no' to unnecessary demands
- Switch off
- Be open about feelings and opinions
- More readily admit their own limits
- Accept the problem
- Talk about the problem with colleagues at school.

Again, although this research gives us a picture of what teachers say they do in order to cope in general with perceived pressures, it lacks specificity. The strategies are not grounded in the context of particular incidents in schools or classes which may give rise to teachers' stress; nor can we be sure that what teachers say they do is actually what they do when confronted with potential 'stressors'.

6.3 Palliative approaches

A number of researchers have pointed out that the actions teachers take to relieve stress are essentially palliative in nature, ie they serve to relieve rather than to 'cure' or remove the problem. A glance through the list of actions below which Dunham (1984b) reports that teachers take to relieve their stress illustrates this point: while undoubtedly teachers may feel better as a consequence of pursuing alleviating activities, few if any address the stressful situation directly.

> Meditation; jogging, relaxation; becoming more detached; listen to music; talk to Deputy and Head; live in small community; let off steam verbally; swimming; dance – where great concentration is needed but of a different quality to that of school work; going out and getting drunk; taking the pressure off by playing squash; making love; develop a sense of humour ; seek promotion elsewhere; learning greater self-control; writing poetry; grumbling a lot; if I could afford replacements I would probably smash a lot of china. (Johnstone, 1989: p.33)

However as Dewe (1991) points out, this is not unexpected as there are many problems which are difficult if not impossible for teachers to deal with directly. These may require management intervention which may not always be forthcoming.

A number of evaluations have been undertaken of structured attempts to help teachers control their stress. These courses usually aim at modifying teachers behaviour so that they learn more effective coping strategies and abandon habitual and less effective methods. Woodho[illegible], Hall and Wooster (1985) claim that by keeping a 'stress diary' participants are encouraged to recognise the actual classroom or school events which are critical to their stress levels. Of the 327 'incidents' logged in the pre-course diary, 187 involved pupils and 140 other staff, which may not be the balance which most of us would have predicted. Further analysis of the incidents indicated that both sets of incidents were of the same nature: disruption of lessons by pupils and disruption of administrative procedures by staff. This seems to imply that it is the disruption of planned work, leading to feelings of frustration and loss of control, which causes teachers the most stress.

Some researchers believe that positive feelings are important in helping employees cope with stress (Barkdoll, 1991) but that good health may also increase hardiness (Hannah, 1988; Pierce & Molloy, 1990). In psychological terms 'hardiness' is a combination of control, challenge and commitment felt by individuals facing stressful situations. The more positive an individual feels, the hardier they are and by extension the more able to keep their own stress levels within manageable limits.

More recent research funded by the Medical Research Council (Griffith *et al*, 1999) highlights the role of social support systems in maintaining hardiness. Previous studies in this area had produced equivocal results. For example, Pierce and Molloy (1996) believed that teachers with high burnout levels lacked social support, but Sheffield *et al* (1994) found that social support did not affect the impact of teacher stress on psychological well-being. In contrast, in a study of 780 teachers in 126 primary and secondary school in south London, Griffith *et al* (1999) demonstrate the beneficial effects on teachers of good relationships with co-workers and a harmonious atmosphere at work. Not only did social support systems moderate the impact of stressors, they also affected teachers' perceptions of stress. These psychosocial resources thus operate at an earlier phase of the teacher's appraisal process than had previously been recognised. This is important because it helps to explain why teachers working in the same

school may feel differential levels of stress dependent upon their individual social support systems.

Why some coping strategies are effective and others fail miserably is still a subject of contention. Cooper (1995), who has written extensively about stress, observes that:

> What is needed here is an appreciation that one coping strategy may be effective in one situation but wholly inappropriate in another. To suggest that social support strategies, for example, are effective in all situations is to misunderstand the role of personality and coping approaches. (p.70)

And irrespective of the social support systems, some researchers claim that our basic personality types continue to influence our ability to cope. As Pearlin and Schooler (1978) point out:

> Possessing the 'right' personality characteristics is somewhat more effective in dealing with economic and job problems ... psychological characteristics ... are more helpful in sustaining people facing strain arising out of conditions over which they may have little direct control – finances and job. (p.13)

Less is known about the relationship between personality and other defensive coping mechanisms which teachers may employ to minimise their stress. However, McCormick (1997) argues that higher stress perceptions were associated with 'immature' defensive coping responses, such as daydreaming, avoidance and withdrawal. And Cooper and Kelly (1993) found that teachers using palliative strategies, such as alcohol, smoking and medication reported greater stress arising from work overload and handling staff relationships. The extent to which Scottish teachers resort to these measures is unknown but Johntone (1993b) reports that one in twelve teachers in her study resorted to 'a glass of wine' or 'a stiff whisky' as their coping strategy; while over half (N=570) had no particular strategy.

Other palliative strategies to reduce teacher anxiety are reported in the literature. For example, Goss (2001) suggests that workplace counselling may have a role to play in helping teachers cope with their stress, and the Teacher Support Network (see Chapter 2) has recently been created to offer such support to teachers in Scotland (TES, 14/12/2001). However previous SCRE reviews found few examples of attempts to evaluate the effectiveness of such courses. Six studies which aimed to decrease teacher anxiety by improving their teaching skills were cited by Coates and Thoresen (1976). Four offered relaxation and desensitisation techniques, well-established approaches to modifying behaviour. Two of these had no effect, one had a good effect and one affected only six teachers in the group. Given the intensive nature of the work undertaken, it is highly unlikely that this approach would ever be widely available to the profession in general.

Since these earlier reviews of palliative approaches, ideas about the teaching profession and how its members cope with stress have developed further. For example, some (including Schonfield, 1990) believe that the movement towards more openness and self-evaluation in schools may actually be protecting

teachers from occupational stress. Teachers who are accustomed to reflecting on their practice, should be more able to develop positive coping strategies at work than other professionals.

6.4 Summary

Earlier SCRE reviews were somewhat pessimistic in reporting research which seemed to question whether teachers could deal, either directly or indirectly, with stress.

- The general advice for helping teachers cope with stress is to develop realistic, positive attitudes and good physical health.
- In practice teachers have adopted a range of coping strategies: most tend to be palliative as by and large teachers feel they are unable to address the root causes of their occupational stress. Some strategies may be ineffective or dysfunctional.
- Some recommend that programmes of behavioural therapy or counselling services may help teachers cope with stress. But these are largely unevaluated, labour intensive and unlikely to become widely available.
- More recently, 'time-out' sabbaticals and counselling have become available to teachers in England. But again these are likely to be taken up by only a small percentage of teachers.
- More optimistically, some researchers suggest that the movement towards self-reflection helps protect teachers from stress.

7: Conclusions

7.1 Introduction

Evidence from published literature on teachers' stress has been explored in this review. Despite the volume of the research identified, few Scottish studies emerge. Most of the Scottish-based information arises from previous SCRE reviews and teachers' workload surveys. These were funded by the former Scottish Office and the EIS.

7.2 Conclusions

What is stress?

It is generally accepted that stress is a multidimentional and multi-level concept. Specifically:

- Stress was originally defined as a neutral general adaptive syndrome to demands.
- Increasingly it has acquired a negative connotation, implying excessive demand or pressure.
- It is difficult to distinguish stress from its causes and effects.
- Three explanatory models of stress have been developed to help us understand the concept of stress: these are based upon engineering, medical and inter-active principles. The first two models assume that teachers are subjects rather than actors in their own destiny; in contrast the third is predicated on shared responsibility for situations which may give rise to occupational stress.
- Ways of measuring teachers' stress levels have relied heavily on information gained from self-report scales and inventories; more recently log books, diaries and observations have been used to supplement them. However, research based upon tests of physiological changes have rarely been conducted outwith laboratory settings.

What are the causes and effects of stress in teaching?

Despite the difficulties inherent in defining stress, research indicates that its development is influenced by personal, situational and structural factors.

- Studies of occupational stress indicate that workload and communications are significant causes.
- Anticipation, worry, helplessness and executive roles have all emerged from laboratory studies as psychological factors which influence stress.
- Several writers concur in finding that pupils' behaviour (misbehaviour), poor working conditions, especially relationships with colleagues, workload (mainly overload) and poor school ethos are the major causes of teacher stress.

- There is considerable evidence, mainly from self-reports, that teachers feel ill as a consequence of excessive stress. However, available absence and retirals statistics are not sufficiently detailed to support this connection.
- Despite the widely reported feeling of teachers' disenchantment with their profession and the desire for early retirement, there no evidence to show that these are impacting on pupils.

How prevalent is stress in teaching?

There is a widespread perception that teaching is a stressful job but a paucity of reliable evidence of its prevalence. However, some tentative comparisons between teaching and other professions can be made. These indicate that:

- Absenteeism and early retirals from the teaching profession can act as proxy measure of stress. However, both are under-developed sources of information.
- Teacher retiral rates have declined over the past decade in Scottish schools but this may not reflect a true demand. A study in England indicates that 'psychiatric' is the largest single cause of teachers' early retirals.
- The TUC suggests that employees in Britain work on average more hours per week than workers in the rest of Europe. In addition, a higher proportion of their safety representatives report that teaching is stressful, second only to the banking and finance industry.
- There are few studies which have compared teachers' stress to that experienced by other professionals. However, two studies in Scotland indicate that teachers' levels were within the norm for the Occupational Stress Index.

What does the Scottish evidence tell us?

From the fourteen Scottish references identified, we conclude that:

- Few studies of teacher stress in Scotland have been commissioned. The exceptions are the previous SCRE reviews upon which this current one builds, and two surveys of teachers' workload. All were completed by SCRE researchers.
- In 2001 a support service to help stressed teachers was launched in Scotland by the Teachers' Benevolent Fund. The Fund operates a similar service in England paid for by the DfES. There appears to be an absence of research demonstrating the need or demand for such a service in Scotland.
- The most relevant Scottish research on teachers' stress in Scotland is provided by two SCRE studies funded by the EIS. Both show that teachers perceive their workload to be increasing.
- Some illuminative evidence of the potentially adverse impact of educational innovation on Scottish teachers emerges from a number of other research studies conducted by SCRE. Two in particular report that teachers believe there are now more demands on their time which leads some to feel more stressed.

How do teachers cope with stress?

Teachers can cope by taking direct action to eliminate the causes of their stress or by adopting palliative measures to ameliorate its effects.

- The general advice in the literature to teachers to help them cope with stress is to develop realistic, positive attitudes and good physical health.
- In practice teachers have adopted a range of coping strategies: most tend to be palliative as by and large teachers feel they are unable to address the root causes of their occupational stress. Some strategies may be ineffective or dysfunctional.
- Some researchers suggest that programmes of behavioural theory or counselling services may help teachers cope with stress. But these are largely unevaluated, labour intensive and unlikely to become widely available.
- More recently, 'time-out' sabbaticals and counselling have become available to teachers in England. But again these are likely to be taken up by only a small percentage of teachers.
- More optimistically, some researchers suggest that the movement towards self-reflection helps protect teachers from stress.

7.3 Suggestions

Finally, although this review concludes that most teachers believe their workload has increased over the past decade and many researchers implicate increased workload with rising levels of stress, there is clearly a need for more information to underpin policy making. Specifically, it would help if:

- A working definition of teachers' stress were agreed.
- Schools, education authorities and the Scottish Executive collated and published statistics on teachers' absence rates and reasons for early retiral.
- Education authorities undertook exit interviews with teachers who take early retirement.
- A teacher-specific measure of occupational stress were designed. This should be sufficiently comprehensive to incorporate job, organisational, personality pre-disposition, and strain scales which apply to teaching and could be used to monitor the teaching profession's capacity to adapt to any proposed educational changes.
- An observational study were undertaken to identify the impact of teachers' stress on teacher/pupil interactions.
- More monitoring, in particular of the continuing impact of educational changes on teachers' experiences of stress, were undertaken.
- Coping strategies and interventions aimed at helping teachers and schools reduce teacher stress were evaluated.

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Appendix 1: Search Strategy

A1 Databases

The following three databases were systematically searched in the course of this review:

- ERSDAT (Educational Research in Scotland Database, maintained by SCRE)
- British Education Index
- ERIC (US-based education index)

A2 Keywords

The following keywords and combinations of keywords were employed in the search:

- stress (psychological OR variables) OR burnout
- teacher(s)
- 1 AND 2

In addition the search was further limited to literature published during the past ten years (1991–2001) as this review is essentially an update of SCRE reviews conducted in 1989 and 1993.

A3 Results

The number of references identified in each database is displayed in the table below:

Table A3: Number of references to stress, by database searched

Keywords	ERSDAT	BEI	ERIC
• Stress (psychological OR variables) OR burnout	44	249	2689
• Teacher(s)	913	9268	102230
• 1 AND 2	14	133	750

As can be seen from Table A3, although there is a considerable body of literature on 'teacher stress' world-wide (750 references in ERIC and 133 in the British Education Index), few Scottish references were identified. Most of the 14 references recorded on ERSDAT are MEd dissertations presented as part-fulfilment for degrees within Education Faculties in Universities in Scotland.

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